

EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	50	H04N5/335.ipc. and image NEAR1 sensor.ti.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	SAME	ON	2006/08/01 09:41
L2	10	H04N5/335.ipc. and image NEAR1 sensor.ti. and adc	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	SAME	ON	2006/08/01 09:47
L3	2	H04N5/335.ipc. and image NEAR1 sensor.ti. and adc	USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	SAME	ON	2006/08/01 09:47
L4	3074	(341/144,155).CCLS.	USPAT	OR	OFF	2006/08/01 10:01
L5	1409	(348/308,241,300,301,294).CCLS.	USPAT	OR	OFF	2006/08/01 10:01
L6	599	(analog ADJ1 digital or ad or adc) image array ampl\$5	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	SAME	ON	2006/08/01 10:03
L7	3	(analog ADJ1 digital or ad or adc) image array ampl\$5 and l1	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	SAME	ON	2006/08/01 10:03
L8	6	(analog ADJ1 digital or ad or adc) image array ampl\$5 and l4	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	SAME	ON	2006/08/01 10:03
L9	15	(analog ADJ1 digital or ad or adc) image array ampl\$5 and l5	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	SAME	ON	2006/08/01 10:03

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L10	0	(analog ADJ1 digital or ad or adc) image array ampl\$5 and l5 and l4	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	SAME	ON	2006/08/01 10:04
S1	1	2000-312347	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2006/07/31 10:26
S2	41	kazuki NEAR1 fujita	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2006/07/31 10:29
S3	20	kazuki NEAR1 fujita harumichi NEAR1 mori	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2006/07/31 10:30
S4	1	kazuki NEAR1 fujita harumichi NEAR1 mori hiroo NEAR1 yamamoto	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	AND	ON	2006/07/31 10:48
S5	1	adc residual m NEAR1 bit n NEAR1 bit ampl\$5	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	WITH	ON	2006/07/31 10:51
S6	0	adc m NEAR1 bit n NEAR1 bit ampl\$5 array	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	WITH	ON	2006/07/31 10:51
S7	0	adc m NEAR1 bit n NEAR1 bit ampl\$5 array	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	SAME	ON	2006/07/31 10:52

EAST Search History

S8	2	adc two NEAR1 stage array	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	WITH	ON	2006/07/31 10:53
S9	11	(analog ADJ1 digital or ad or adc) image array (residual or difference) ampl\$5	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	WITH	ON	2006/08/01 10:02
S10	65	(analog ADJ1 digital or ad or adc) image array (residual or difference) ampl\$5	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	SAME	ON	2006/07/31 11:09
S11	0	ho4n ADJ1 5/335	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	SAME	ON	2006/07/31 11:13
S12	0	ho4n5/335.ipc.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	SAME	ON	2006/07/31 11:13
S13	0	ho4n05/335.ipc.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	SAME	ON	2006/07/31 11:13
S14	0	H04N05/335.ipc.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	SAME	ON	2006/07/31 11:14
S15	253	H04N5/335.ipc.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	SAME	ON	2006/07/31 11:15

EAST Search History

S16	4	H04N5/335.ipc. and 341/155	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	SAME	ON	2006/08/01 10:01
S17	37	H04N5/335.ipc. and adc	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	SAME	ON	2006/07/31 12:59
S18	253	H04N5/335.ipc.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	SAME	ON	2006/08/01 09:41
S19	0	(analog ADJ1 digital or ad or adc) image array (residual or difference) ampl\$5 and S18	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	WITH	ON	2006/07/31 13:00
S20	6	(analog ADJ1 digital or ad or adc) image array ampl\$5 and S18	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	SAME	ON	2006/07/31 13:00


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» Key

IEEE JNL IEEE Journal or Magazine

IEE JNL IEE Journal or Magazine

IEEE CNF IEEE Conference Proceeding

IEE CNF IEE Conference Proceeding

IEEE STD IEEE Standard

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[Ultrasonics Symposium, 2001 IEEE](#)
Volume 2, 7-10 Oct. 2001 Page(s):1529 - 1533 vol.2
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- ☐ 2. **Front end electronics for a variable field PET camera using the PMT-quad detector array design**
Wai-Hoi Wong; Hu, G.; Zhang, N.; Uribe, J.; Wang, J.; Li, H.; Lu, W.; Hossain, I.; Yokoyama, S.;
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- ☐ 5. **A sampling ADC data acquisition system for positron emission tomograp**
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- ☐ 7. **A CMOS image sensor with analog two-dimensional DCT-based compressed one-chip cameras**
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- ☐ 12. **Preliminary results of a data acquisition sub-system for distributed, digit computational, APD-based, dual-modality PET/CT architecture for small :**

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- ☐ **17. A novel double slope analog-to-digital converter for a high-quality 640 \times 480 pixel**
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- ☐ **19. Front end electronics for a variable field PET camera using the PMT-quadrant detector array design**
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- ☐ **21. A targeted sparse readout for multi-anode photo-multipliers and optically crystals**
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- ☐ **24. A wide dynamic range CMOS image sensor with multiple exposure-time and 12-bit column-parallel cyclic A/D converters**
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- ☐ **25. A multimode digital detector readout for solid-state medical imaging detectors**
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1 [A 3-pin 1.5 V 550 mW 176 x 144 self-clocked CMOS active pixel image sensor](#)



Kwang-Bo Cho, Alexander Krymski, Eric Fossum

 August 2001 **Proceedings of the 2001 international symposium on Low power electronics and design**

Publisher: ACM Press

 Full text available: [pdf\(350.69 KB\)](#) Additional Information: [full citation](#), [references](#), [index terms](#)

Keywords: CMOS, active pixel sensor, image sensor, low-power, low-voltage, self-clocked

2 [Track 6: autonomic and organic computing: Marching-pixels: a new organic computing paradigm for smart sensor processor arrays](#)



Dietmar Fey, Daniel Schmidt

 May 2005 **Proceedings of the 2nd conference on Computing frontiers**

Publisher: ACM Press

 Full text available: [pdf\(606.57 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

In this paper we present a new organic computing principle denoted as marching pixels for the architectures of future smart CMOS camera chips. The idea of marching pixels is based on the realization of a massively-parallel fine-grain single-chip processor array. Marching pixels are virtual organic units which are propagating in a pixel processor array, similar to virtual ants in ant algorithms. The task of the marching pixels is to carry out autonomously important image pre-processing tasks, e.g ...

Keywords: image pre-processing, organic computing, self-organization, smart CMOS camera, smart pixels

3 [SPOTS'06 session 4--new sensors and architectures: The low power energy aware processing \(LEAP\) embedded networked sensor system](#)



Dustin McIntire, Kei Ho, Bernie Yip, Amarjeet Singh, Winston Wu, William J. Kaiser

 April 2006 **Proceedings of the fifth international conference on Information processing in sensor networks IPSN '06**

Publisher: ACM Press

 Full text available: [pdf\(200.80 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

A broad range of embedded networked sensor (ENS) systems for critical environmental monitoring applications now require complex, high peak power dissipating sensor devices, as well as on-demand high performance computing and high bandwidth communication. Embedded computing demands for these new platforms include support for computationally intensive image and signal processing as well as optimization and statistical computing. To meet these new requirements while maintaining critical support for ...

Keywords: embedded wireless networked sensor, energy-aware multiprocessor platform, sensor platform hardware and software architecture

4 Applications: Cyclops: in situ image sensing and interpretation in wireless sensor networks

Mohammad Rahimi, Rick Baer, Obimdinachi I. Iroezi, Juan C. Garcia, Jay Warrior, Deborah Estrin, Mani Srivastava

November 2005 **Proceedings of the 3rd international conference on Embedded networked sensor systems SenSys '05**

Publisher: ACM Press

Full text available:  [pdf\(1.25 MB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

Despite their increasing sophistication, wireless sensor networks still do not exploit the most powerful of the human senses: vision. Indeed, vision provides humans with unmatched capabilities to distinguish objects and identify their importance. Our work seeks to provide sensor networks with similar capabilities by exploiting emerging, cheap, low-power and small form factor CMOS imaging technology. In fact, we can go beyond the stereo capabilities of human vision, and exploit the large scale of ...

Keywords: CMOS imaging, imaging, power efficiency, sensor network, vision

5 (Special session) presentation + poster discussion: university design contest: Design of real-time VGA 3-D image sensor using mixed-signal techniques

Yusuke Oike, Makoto Ikeda, Kunihiro Asada

January 2004 **Proceedings of the 2004 conference on Asia South Pacific design automation: electronic design and solution fair ASP-DAC '04 , Proceedings of the 2004 conference on Asia South Pacific design automation: electronic design and solution fair ASP-DAC '04**

Publisher: IEEE Press , IEEE Press

Full text available:  [pdf\(506.41 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#)
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We have developed the first real-time 3-D image sensor with VGA pixel resolution using mixed-signal techniques to achieve high-speed and high-accuracy range calculation based on a light-section method. Our mixed-signal position detector, which consists of an adaptive threshold circuit and time-domain approximate ADCs, provides significant information for range finding quickly during high-speed analog-to-digital conversion. Moreover the position address and the intensity profile of a projected be ...

6 High dynamic range imaging

Paul Debevec, Erik Reinhard, Greg Ward, Sumanta Pattanaik

August 2004 **Proceedings of the conference on SIGGRAPH 2004 course notes GRAPH '04**

Publisher: ACM Press

Full text available:  [pdf\(20.22 MB\)](#) Additional Information: [full citation](#), [abstract](#)

Current display devices can display only a limited range of contrast and colors, which is one of the main reasons that most image acquisition, processing, and display techniques use no more than eight bits per color channel. This course outlines recent advances in high-dynamic-range imaging, from capture to display, that remove this restriction, thereby enabling images to represent the color gamut and dynamic range of the original scene rather than the limited subspace imposed by current monitor ...

7 VLSI circuits: Design of a nanosensor array architecture



Wei Xu, N. Vijaykrishnan, Y. Xie, M. J. Irwin

April 2004 **Proceedings of the 14th ACM Great Lakes symposium on VLSI**

Publisher: ACM Press

Full text available: [pdf\(1.37 MB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

This paper describes a nanowire sensor array architecture for high-speed, high-accuracy sensor systems. The chip has very simple processing elements (PEs) in a massively parallel architecture, in which each PE is directly connected to seven sensors. A sampling rate of 100 ns is enough to realized high-speed sensing feedback for electronic nose. We aim to create a very simple architecture, because a compact design is required ton integrate as many PEs as possible on a single chip. A widely used, ...

Keywords: electronic nose, gas sensing, nanowire sensor array, pattern recognition, sensor pre-processing

8 A smart position sensor for 3-D measurement



Tomohiro Nezuka, Masashi Hoshino, Makoto Ikeda, Kunihiro Asada

January 2001 **Proceedings of the 2001 conference on Asia South Pacific design automation**

Publisher: ACM Press

Full text available: [pdf\(1.12 MB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

A smart position sensor for 3-D measurement has been developed. The sensor is designed for detecting positions of laser spots projected on target objects quickly. The sensor has a 256 x 256 pixel array, a set of address decoders for variable block access and a variable block logical-OR circuit on an 8.9mm x 8.9mm die. The sensor is designed and fabricated in 0.6um CMOS 3-metal 2-poly-Si process. The measured accuracy of 3-D measurement is 0.4%. The speed of 3-D measurement is up to 10000poi ..

9 Towards design and validation of mixed-technology SOCs



S. Mir, B. Charlot, G. Nicolescu, P. Coste, F. Parrain, N. Zergainoh, B. Courtois, A. Jerraya, M. Rencz

March 2000 **Proceedings of the 10th Great Lakes symposium on VLSI**

Publisher: ACM Press

Full text available: [pdf\(581.54 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

This paper illustrates an approach to design and validation of heterogeneous systems. The emphasis is placed on devices which incorporate MEMS parts in either a single mixed-technology (CMOS + micromachining) SOC device, or alternatively as a hybrid system with the MEMS part in a separate chip. The design flow is general, and it is illustrated for the case of applications embedding CMOS sensors. In particular, applications based on finger-print recognition are considered since a ric ...


Keywords: HDLs, MEMS, SOCs, architecture exploration, cosimulation, design, verification

A CMOS-Based Tactile Sensor for Continuous Blood Pressure Monitoring

K.-U. Kirstein, J. Sedivy, T. Salo, C. Hagleitner, T. Vancura, A. Hierlemann

March 2005 **Proceedings of the conference on Design, Automation and Test in Europe - Volume 3 DATE '05****Publisher:** IEEE Computer SocietyFull text available:  [pdf\(229.33 KB\)](#) Additional Information: [full citation](#), [abstract](#), [index terms](#)

A monolithic integrated tactile sensor array is presented, which is used to perform non-invasive blood pressure monitoring of a patient. The advantage of this device compared to a hand cuff based approach is the capability of recording continuous blood pressure data. The capacitive, membrane-based sensor device is fabricated in an industrial CMOS-technology combined with post-CMOS micromachining. The capacitance change is detected by a $\Delta\Delta$ -modulator. The modulator is operated at a sampling rate o ...

11 Recovering high dynamic range radiance maps from photographs Paul E. Debevec, Jitendra MalikAugust 1997 **Proceedings of the 24th annual conference on Computer graphics and interactive techniques****Publisher:** ACM Press/Addison-Wesley Publishing Co.Full text available:  [pdf\(1.43 MB\)](#) Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)12 Poster session: Wireless sensor networks: a power-scalable motion estimation IP for hybrid video coding Federico Quaglio, Maurizio Martina, Fabrizio Vacca, Guido Masera, Andrea Molino, Gianluca Piccinini, Maurizio ZamboniFebruary 2003 **Proceedings of the 2003 ACM/SIGDA eleventh international symposium on Field programmable gate arrays****Publisher:** ACM PressFull text available:  [pdf\(187.05 KB\)](#) Additional Information: [full citation](#), [abstract](#)

Wireless Sensor Networks are an emerging phenomenon in the research community. The design and development of network architectures and nodes implementation are fostering many research activities. Due to their wide application fields and pervasive employment possibilities, the investigation of novel classes of wireless sensor nodes is of great concern. In this paper we presented a novel Power-Scalable Motion Estimation IP suitable for video-surveillance over Wireless Sensor Networks. The proposed ...

13 Poster session: A single-FPGA implementation of image connected component labelling K. Benkrid, S. Sukhsawas, D. Crookes, S. BelkacemiFebruary 2003 **Proceedings of the 2003 ACM/SIGDA eleventh international symposium on Field programmable gate arrays****Publisher:** ACM PressFull text available:  [pdf\(187.05 KB\)](#) Additional Information: [full citation](#), [abstract](#)

... This paper describes an architecture based on a serial iterative algorithm for Image Connected Component Labelling with a hardware complexity $O(N)$ for an $N \times N$ image. The algorithm iteratively scans the input image, performing a recursive non-zero maximum neighbourhood operation. A complete forward pass is followed by an inverse pass in which the image is scanned in reverse order. The process is repeated until no change in the image occurs. The algorithm has been coded in Handel C language and tar ...

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Poster session: A physical retiming algorithm for field programmable gate arrays (abstract only)


-  Peter Suaris, Dongsheng Wang, Pei-Ning Guo, Nan-Chi Chou
February 2003 **Proceedings of the 2003 ACM/SIGDA eleventh international symposium on Field programmable gate arrays**

Publisher: ACM Press

Full text available:  [pdf\(187.05 KB\)](#) Additional Information: [full citation](#), [abstract](#)


In this paper, we present a physical retiming algorithm for sequential circuits implemented in field programmable gate arrays (FPGAs). This algorithm can speed up the sequential circuits by reducing delay of all critical paths with negative slacks. By taking advantage of the physical information provided by placed circuits, this algorithm integrates two operations: retiming and register duplication. Retiming moves registers across combinational components. Register duplication moves registers ac ...


- 15 Exploiting FPGA-features during the emulation of a fast reactive embedded system 

-  Karlheinz Weiß, Thorsten Steckstor, Gernot Koch, Wolfgang Rosenstiel
February 1999 **Proceedings of the 1999 ACM/SIGDA seventh international symposium on Field programmable gate arrays**

Publisher: ACM Press

Full text available:  [pdf\(2.02 MB\)](#) Additional Information: [full citation](#), [references](#), [citations](#), [index terms](#)

- 16 SPOTS'06 session 2--sensor network testbeds: Marionette: using RPC for interactive development and debugging of wireless embedded networks 


-  Kamin Whitehouse, Gilman Tolle, Jay Taneja, Cory Sharp, Sukun Kim, Jaein Jeong, Jonathan Hui, Prabal Dutta, David Culler
April 2006 **Proceedings of the fifth international conference on Information processing in sensor networks IPSN '06**

Publisher: ACM Press

Full text available:  [pdf\(358.52 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)

A main challenge with developing applications for wireless embedded systems is the lack of visibility and control during execution of an application. In this paper, we present a tool suite called *Marionette* that provides the ability to call functions and to read or write variables on pre-compiled, embedded programs at run-time, without requiring the programmer to add any special code to the application. This rich interface facilitates interactive development and debugging at minimal cost ...

Keywords: RPC, debugging, embedded networks, programming

- 17 Smart pixel implementation of a 2-D parallel nucleic wavelet transform for mobile multimedia communications 

A. M. Rassau, K. Eshraghian, H. Cheung, S. W. Lachowicz, T. C. B. Yu, W. A. Crossland, T. D. Wilkinson

February 1998 **Proceedings of the conference on Design, automation and test in Europe**

Publisher: IEEE Computer Society

Full text available:  [pdf\(75.54 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [index terms](#)
 [Publisher Site](#)

A novel Smart Pixel Opto-VLSI architecture to implement a complete 2-D wavelet transform of real-time captured images is presented. The Smart Pixel architecture enables the realization of a highly parallel, compact, low power device capable of real-time capture, compression, decompression and display of images suitable for Mobile Multimedia Communication applications.

Keywords: Image Processing, Real-Time Systems, Parallel Processing, Wavelet Transform, Sensor Array, Multimedia, Mobile Telecommunication

18 Applications and OS: Wireless sensor networks for habitat monitoring

 Alan Mainwaring, David Culler, Joseph Polastre, Robert Szewczyk, John Anderson
September 2002 **Proceedings of the 1st ACM international workshop on Wireless sensor networks and applications**


Publisher: ACM Press

Full text available:  [pdf\(542.04 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

We provide an in-depth study of applying wireless sensor networks to real-world habitat monitoring. A set of system design requirements are developed that cover the hardware design of the nodes, the design of the sensor network, and the capabilities for remote data access and management. A system architecture is proposed to address these requirements for habitat monitoring in general, and an instance of the architecture for monitoring seabird nesting environment and behavior is presented. The cu ...

Keywords: environmental monitoring, habitat monitoring, low power systems, sensor network architecture, wireless sensor networks

19 Systems 1: Sensor network-based countersniper system

 Gyula Simon, Miklós Maróti, Ákos Lédeczi, György Balogh, Branislav Kusy, András Nádas, Gábor Pap, János Sallai, Ken Frampton
November 2004 **Proceedings of the 2nd international conference on Embedded networked sensor systems**


Publisher: ACM Press

Full text available:  [pdf\(728.71 KB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

An ad-hoc wireless sensor network-based system is presented that detects and accurately locates shooters even in urban environments. The system consists of a large number of cheap sensors communicating through an ad-hoc wireless network, thus it is capable of tolerating multiple sensor failures, provides good coverage and high accuracy, and is capable of overcoming multipath effects. The performance of the proposed system is superior to that of centralized countersniper systems in such challenge ...

Keywords: acoustic source localization, data fusion, message routing, middleware services, sensor networks, time synchronization

20 Creating reference architectures: an example from avionics

 Don Batory, Lou Coglianese, Mark Goodwin, Steve Shafer
August 1995 **ACM SIGSOFT Software Engineering Notes, Proceedings of the 1995 Symposium on Software reusability SSR '95**, Volume 20 Issue SI

Publisher: ACM Press

Full text available:  [pdf\(1.08 MB\)](#) Additional Information: [full citation](#), [abstract](#), [references](#), [citations](#), [index terms](#)

- ADAGE is a project to define and build a domain-specific software architecture (DSSA) environment for assisting the development of avionics software. A central concept of DSSA is the use of software system generators to implement component-based models of software synthesis in the target domain [SEI90]. In this paper, we present the ADAGE component-based model (or reference architecture) for avionics software synthesis. We explain the modeling procedures used, review our initial g ...

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